

**IN THE CLAIMS:**

Claims 1-10 (cancelled)

Claim 11. (original) A thermoelectric refrigerator comprising a first piece of thermoelectric material and a second piece of thermoelectric material different from said second thermoelectric material, said thermoelectric material having a  $\text{CdI}_2$  analogous layer structure and expressed by general formula of



where x is fallen within the range of  $0 \leq x \leq 2$  and y is fallen within the range of  $0 \leq y < 1$ ,

in which said A is at least one element selected from the group consisting of lithium, sodium, potassium, rubidium and cesium,

and in which said B is at least one element selected from the group consisting of titanium, vanadium, chromium, zirconium, niobium, molybdenum, hafnium, tantalum, tungsten, iridium and tin,

and in which said C is at least one element selected from the group consisting of sulfur, selenium and tellurium.

Claim 12. (original) The thermoelectric refrigerator as set forth in claim 11, in which said at least one element occupying at said A is totally replaced with at least one element selected from the group consisting of magnesium, calcium, strontium, barium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc (Zn), zirconium, niobium, molybdenum, ruthenium, rhodium, palladium, silver, cadmium, hafnium, tantalum, tungsten, rhenium, iridium, platinum, gold, rare-earth elements containing scandium, and yttrium, boron, aluminum, gallium, indium, thallium, tin, lead, antimony and bismuth.